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NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

Vol. 17, No. 12

WEEKLY REPORT

Week ending March 23, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

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EPIDEMIOLOGIC NOTES AND REPORTS
FOLLOW-UP MEASLES – Chicago

From March 1 through March 23, 1968, the City of Chicago recorded 139 cases of measles. While many of these cases have not yet been clinically confirmed, the total number of cases for March will undoubtedly fall below the January and February totals of 276 and 226, respectively. The epidemic curve for the City as a whole (Figure 1) has declined from approximately 57 cases per week during January and early February to approximately 35 cases per week for the first 2 weeks of March. The total number of cases for the week ending March 23 is not yet known.

(Continued on page 102)

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Note: DELAYED CASE REPORTS

Delayed case reports received in the current week's telegrams will be included in the cumulative total for the following week and will be accompanied by documented footnotes. Thus, the cumulative total appearing in this week's issue includes the current cases and delayed reports received through last week.

*See note on weekly telegrams, second column, back page.

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

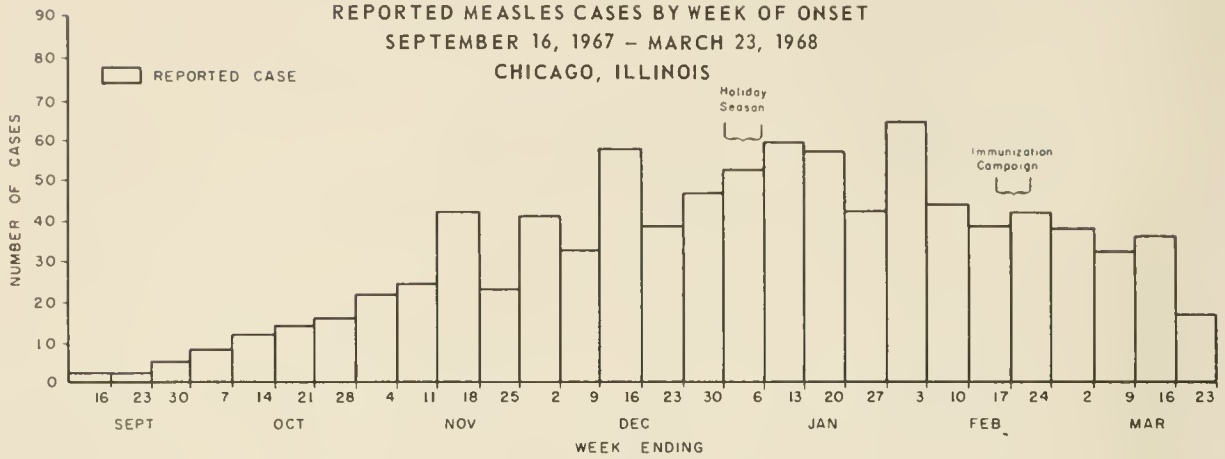
DISEASE	12th WEEK ENDED		MEDIAN	CUMULATIVE, FIRST 12 WEEKS		
	March 23, 1968	March 25, 1967	1963 - 1967	1968	1967	MEDIAN 1963 - 1967
Aseptic meningitis	27	29	27	325	336	335
Brucellosis	7	4	6	19	44	49
Diphtheria	8	—	6	37	28	48
Encephalitis, primary:						
Arthropod-borne & unspecified	12	35	---	170	273	---
Encephalitis, post-infectious	12	21	---	104	152	---
Hepatitis, serum	82	43	908	826	440	9,988
Hepatitis, infectious	866	900		9,888	9,548	
Malaria	38	46	2	529	480	25
Measles (rubeola)	980	2,802	11,272	7,225	27,309	105,866
Meningococcal infections, total	36	42	79	956	704	746
Civilian	34	39	---	875	653	---
Military	2	3	---	81	51	---
Mumps	5,275	---	---	60,893	---	---
Poliomyelitis, total	4	—	1	15	3	5
Paralytic	4	—	1	15	3	4
Rubella (German measles)	1,672	1,574	---	12,222	12,160	---
Streptococcal sore throat & scarlet fever	11,634	13,359	11,974	138,384	147,706	134,601
Tetanus	3	1	2	25	34	42
Tularemia	1	3	3	17	28	49
Typhoid fever	7	7	5	49	63	74
Typhus, tick-borne (Rky. Mt. spotted fever)	—	—	—	3	8	6
Rabies in animals	73	95	96	841	958	958

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	1	Rabies in man:	—
Botulism:	—	Rubella, Congenital Syndrome:	3
Leptospirosis: Tex.-1	4	Trichinosis: Mass.-1, N.Y. Ups.-1, Ohio-2	10
Plague:	—	Typhus, murine:	2
Psittacosis: Mich.-1	8		

FOLLOW-UP MEASLES – *(Continued from front page)*

Figure 1
REPORTED MEASLES CASES BY WEEK OF ONSET
SEPTEMBER 16, 1967 – MARCH 23, 1968
CHICAGO, ILLINOIS



Between February 15 and February 20, 1968, an intensive immunization program was conducted by the Chicago Board of Health with the assistance of a team from NCDC in 334 schools in 21 of Chicago's 76 community areas (MMWR, Vol. 17, No. 8). A total of 35,242 children received vaccine.

Reported cases during March continue to occur primarily in preschool children. Of the 118 cases where age is known, 88 (75 percent) were in children below 5 years of age. Of the 139 cases recorded between March 1 and March 23, 86 percent resided in the 21 community areas included in the February immunization campaign. Because of the continued occurrence of measles in these areas and in this age group, further epidemiologic investigation is in progress.

(Reported by Samuel L. Andelman, M.D., M.P.H., Commissioner of Health, William I. Fishbein, M.D., Medical Director, Bureau of Health Services, and Hyman G. Orbach, Ph.D., Epidemiologist, Chicago Board of Health; and a team from NCDC.)

CURRENT TRENDS
MEASLES – United States

For the week ending March 23, 1968, (week 12), 980 cases of measles were reported to NCDC. This is an increase of 318 cases over the total for the preceding week; six states, New York, Virginia, Florida, Tennessee, Texas, and California, accounted for 89 percent of the increase this week. Of these 980 cases, 10 reporting areas reported more than 25 cases each (Table III, Page 105, this issue MMWR); California reported 153 cases and noted that this total includes delayed reports which cannot yet be distinguished from cases occurring in week 12.

(Reported by State Services Section and Statistics Section, NCDC.)

EPIDEMIOLOGIC NOTES AND REPORTS
ANTHRAX – Connecticut

A presumptive case of cutaneous anthrax occurred in an employee of a felt manufacturing plant in Connecticut. On February 7, 1968, the patient who worked in the "picking and blending" area, an early production stage, noted a small sore on his right forearm. The lesion increased in size and a physician was consulted on February 9. He dressed the wound and initiated therapy with penicillin. Two days later, the patient was reexamined and the lesion had increased to approximately the size of a silver dollar and had a black weeping center. An indurated erythemntous area surrounded the lesion and tender right axillary lymphadenopathy was noted. Because of the occupational history, a diagnosis of cutaneous anthrax was made and the patient was admitted to a hospital. Cultures taken upon admission were negative for *Bacillus anthracis*. Penicillin therapy was continued and the patient improved and was discharged on February 22.

The felt company which processes imported wool, karakul, goat hair, and domestic synthetics produces a wide variety of products. The imported gont hair, which is purchased as a waste product from a plant that had had previous cases of human anthrax, is used to manufacture an abrasive felt material used in industry.

A total of 80 environmental surface swab samples were taken from the early production phase including the "picking and blending" area of the plant. One isolation of *B. anthracis* was made from n picking machine. Samples of raw material were obtained and *B. anthracis* wns recovered from imported goat hair.

(Reported by James C. Hart, M.D., M.P.H., Director, Preventable Diseases, Barbara W. Christine, M.D., M.P.H., Chief, Epidemiology Section, and Mr. J. Geil, Chief Industrial Hygienist, Connecticut State Department of Health, and an EIS Officer.)

Editorial Note:

Despite the absence of bacteriologic confirmation, the clinical and epidemiologic data are consistent with the diagnosis of cutaneous anthrax. Therapy with penicillin does not affect the evolution of the typical cutaneous lesion but does ameliorate systemic symptoms. The majority of cases of industrially associated anthrax in the United States occur in plants where imported goat hair is processed. Additionally, persons employed in the early production phase are at greater risk of developing anthrax.

SURVEILLANCE SUMMARY
DIPHTHERIA – 1965 and 1966

During the two years 1965 and 1966, a total of 373 cases of diphtheria were reported to NCDC. The diagnosis of diphtheria was bacteriologically confirmed in 298 of the reported cases; mitis strains comprised 54 percent of the isolates, gravis strains accounted for 25 percent, and intermedius made up 15 percent. No significant differences in case fatality ratios were detected among patients with illness caused by the different types of *Corynebacterium diphtheriae* (Table 1). Approximately one-fifth of 231 strains that were isolated from typical clinical cases and tested for toxigenicity were non-toxigenic. However, a significantly greater case fatality ratio was observed in cases from whom toxigenic strains were recovered (Table 2).

Table 1
Relotionship of Case Fatolity Rotio to Type of C. *diphtheria*

Type of *C. diphtheria*	Cases	Deaths	Case Fatality Ratio
Mitis	72	9	12.5
Gravis	36	3	8.3
Intermedius	22	2	9.1
Indeterminate	8	1	12.5
Total	138	15	10.9

Table 2
Relotianship of Toxigenicity of C. *diphtheria* to Cose Fatality Ratia

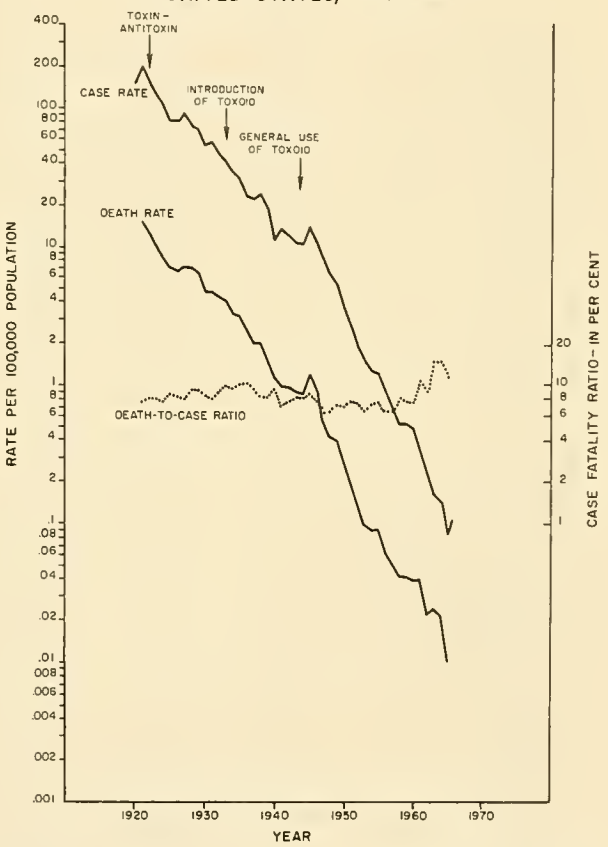
Toxigenicity	Cases	Deaths	Case Fatality Ratio
Toxigenic	182	23	12.6*
Non-toxigenic	49	0	0*
Total	231	23	10.0

*P<.025

The number of diphtheria cases has decreased markedly in the United States over the past 45 years. The 164 cases reported in 1965 represented the fewest cases ever reported in 1 year from the United States. However, the ratio of deaths to cases has not changed significantly since the mid-1920's despite the introduction of antitoxin, antibiotics, and improvements in the quality of medical care (Figure 2).

Analysis of the reported cases shows that, as in previous years, southern states reported the majority of cases. Alabama, Louisiana, and South Carolina had average annual incidence rates greater than 0.50 cases per 100,000 population. However, Montana had the highest average annual incidence rate for 1965 and 1966. This mainly resulted from a large outbreak of diphtheria that occurred on an Indian reservation in Montana during the winter of 1965-66 (MMWR, Vol. 15, No. 20). In 1965 and 1966, 18 states reported no diphtheria cases. Most of these states were located in the Rocky Mountain area or along the eastern coast north of the Carolinas.

Figure 2
DIPHTHERIA-REPORTED ANNUAL CASE AND DEATH RATES, AND CASE-FATALITY RATIO
UNITED STATES, 1920-1966



Children accounted for the majority of cases: 75 percent of all diphtheria cases occurred in the 15 years or under age group and 63 percent of these cases were in children less than 10 years of age. The incidence rate in nonwhites (0.42 per 100,000) was 10 times greater than in whites (0.04 cases per 100,000). The racial disparity in incidence was noted in all age groups except the 35- to

(Continued on page 108)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MARCH 23, 1968 AND MARCH 25, 1967 (12th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA
					Primary including unsp. cases		Post-Infectious	Serum	Infectious		
	1968	1967	1968	1968	1968	1967	1968	1968	1968	1967	1968
UNITED STATES...	27	29	7	8	12	35	12	82	866	900	38
NEW ENGLAND.....	-	-	-	-	-	1	-	2	31	38	1
Maine.....	-	-	-	-	-	-	-	-	-	5	-
New Hampshire.....	-	-	-	-	-	-	-	-	2	1	-
Vermont.....	-	-	-	-	-	-	-	-	-	1	-
Massachusetts.....	-	-	-	-	-	1	-	-	16	27	-
Rhode Island.....	-	-	-	-	-	-	-	1	4	-	-
Connecticut.....	-	-	-	-	-	-	-	1	9	4	1
MIDDLE ATLANTIC.....	5	-	-	-	4	3	1	14	122	220	6
New York City.....	-	-	-	-	3	2	-	8	40	57	-
New York, up-State.	-	-	-	-	-	1	-	3	30	23	1
New Jersey.....	3	-	-	-	-	-	-	1	28	103	3
Pennsylvania.....	2	-	-	-	1	-	1	2	24	37	2
EAST NORTH CENTRAL...	2	1	2	-	3	9	7	2	154	139	1
Ohio.....	-	1	-	-	3	6	2	-	37	21	-
Indiana.....	-	-	1	-	-	2	-	-	9	22	-
Illinois.....	-	-	1	-	-	-	2	-	44	29	1
Michigan.....	2	-	-	-	-	1	3	2	39	49	-
Wisconsin.....	-	-	-	-	-	-	-	-	25	18	-
WEST NORTH CENTRAL...	-	-	2	-	2	1	1	-	70	78	-
Minnesota.....	-	-	1	-	-	-	1	-	15	11	-
Iowa.....	-	-	1	-	-	-	-	-	22	-	-
Missouri.....	-	-	-	-	2	-	-	-	13	63	-
North Dakota.....	-	-	-	-	-	-	-	-	4	2	-
South Dakota	-	-	-	-	-	-	-	-	2	-	-
Nebraska.....	-	-	-	-	-	-	-	-	3	-	-
Kansas.....	-	-	-	-	-	1	-	-	11	2	-
SOUTH ATLANTIC.....	6	7	2	-	1	3	-	7	66	70	8
Delaware.....	-	1	-	-	-	-	-	-	5	3	-
Maryland.....	1	1	-	-	1	-	-	3	17	15	-
Dist. of Columbia..	-	-	-	-	-	-	-	-	1	1	-
Virginia.....	-	-	2	-	-	2	-	1	9	19	2
West Virginia.....	-	3	-	-	-	-	-	-	5	9	-
North Carolina.....	1	1	-	-	-	1	-	-	2	7	5
South Carolina.....	-	-	-	-	-	-	-	-	1	1	1
Georgia.....	-	-	-	-	-	-	-	-	4	9	-
Florida.....	4	1	-	-	-	-	-	3	22	6	-
EAST SOUTH CENTRAL...	-	6	-	2	-	-	1	-	74	74	-
Kentucky.....	-	2	-	-	-	-	-	-	33	28	-
Tennessee.....	-	2	-	-	-	-	1	-	15	21	-
Alabama.....	-	-	-	-	-	-	-	-	11	5	-
Mississippi.....	-	?	-	2	-	-	-	-	15	20	-
WEST SOUTH CENTRAL...	3	5	1	5	-	2	-	2	81	71	-
Arkansas.....	-	-	-	-	-	2	-	-	9	-	-
Louisiana.....	-	2	-	-	-	-	-	2	6	8	-
Oklahoma.....	-	-	-	-	-	-	-	-	8	5	-
Texas.....	3	3	1	5	-	-	-	-	58	58	-
MOUNTAIN.....	-	-	-	-	-	10	-	3	29	40	8
Montana.....	-	-	-	-	-	-	-	-	4	6	-
Idaho.....	-	-	-	-	-	-	-	-	3	1	-
Wyoming.....	-	-	-	-	-	-	-	-	1	9	1
Colorado.....	-	-	-	-	-	-	-	-	2	7	6
New Mexico.....	-	-	-	-	-	-	-	-	7	11	1
Arizona.....	-	-	-	-	-	10	-	3	8	-	-
Utah.....	-	-	-	-	-	-	-	-	4	6	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	11	10	-	1	2	6	2	52	239	170	14
Washington.....	-	-	-	-	-	-	-	1	29	12	3
Oregon.....	1	-	-	-	-	-	-	1	15	16	-
California.....	10	10	-	1	2	6	2	50	191	140	9
Alaska.....	-	-	-	-	-	-	-	-	3	2	-
Hawaii.....	-	-	-	-	-	-	-	-	1	-	2
Puerto Rico.....	1	1	-	-	-	-	-	-	16	16	-

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

MARCH 23, 1968 AND MARCH 25, 1967 (12th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA
		Cumulative			Cumulative			Total	Paralytic		
	1968	1968	1967	1968	1968	1967	1968	1968	1968	Cum. 1968	1968
UNITED STATES...	980	7,225	27,309	36	956	704	5,275	4	4	15	1,672
NEW ENGLAND.....	44	350	289	2	45	26	305	-	-	-	295
Maine.....	-	10	49	-	2	1	6	-	-	-	25
New Hampshire.....	1	47	63	-	2	1	22	-	-	-	3
Vermont.....	-	5	20	-	1	-	19	-	-	-	9
Massachusetts.....	20	176	107	2	24	13	-	-	-	-	98
Rhode Island.....	-	3	21	-	4	-	28	-	-	-	32
Connecticut.....	23	109	29	-	12	11	230	-	-	-	128
MIDDLE ATLANTIC.....	160	972	843	6	165	85	202	-	-	-	190
New York City.....	39	188	130	1	62	16	111	-	-	-	109
New York, Up-State.	92	539	186	2	16	25	NN	-	-	-	25
New Jersey.....	18	178	229	1	46	33	91	-	-	-	56
Pennsylvania.....	11	67	298	2	41	11	NN	-	-	-	-
EAST NORTH CENTRAL...	156	1,791	2,137	7	96	70	1,814	-	-	-	364
Ohio.....	15	127	336	-	20	30	81	-	-	-	87
Indiana.....	31	281	244	1	13	8	149	-	-	-	21
Illinois.....	60	784	326	5	25	14	300	-	-	-	56
Michigan.....	11	111	461	1	29	13	715	-	-	-	96
Wisconsin.....	39	488	770	-	9	5	569	-	-	-	104
WEST NORTH CENTRAL...	11	141	1,210	1	40	35	552	-	-	-	75
Minnesota.....	3	6	48	-	6	7	6	-	-	-	1
Iowa.....	2	40	243	-	3	6	479	-	-	-	53
Missouri.....	-	9	39	1	8	9	-	-	-	-	13
North Dakota.....	4	55	481	-	2	-	35	-	-	-	7
South Dakota.....	-	3	38	-	4	5	NN	-	-	-	-
Nebraska.....	2	21	361	-	4	7	21	-	-	-	-
Kansas.....	-	7	NN	-	13	1	11	-	-	-	1
SOUTH ATLANTIC.....	88	560	2,802	8	202	147	396	-	-	-	133
Delaware.....	1	5	24	-	1	5	10	-	-	-	6
Maryland.....	4	39	56	2	14	18	52	-	-	-	40
Dist. of Columbia..	-	4	9	-	7	-	-	-	-	-	-
Virginia.....	29	124	840	1	15	13	60	-	-	-	23
West Virginia.....	11	134	505	-	4	12	148	-	-	-	7
North Carolina.....	9	59	584	3	45	30	NN	-	-	-	-
South Carolina.....	-	16	90	-	39	12	2	-	-	-	12
Georgia.....	-	3	10	-	34	28	-	-	-	-	-
Florida.....	34	176	684	2	43	29	124	-	-	-	45
EAST SOUTH CENTRAL...	51	166	3,031	3	74	70	286	-	-	-	33
Kentucky.....	1	41	960	1	28	20	152	-	-	-	7
Tennessee.....	22	38	949	1	21	30	117	-	-	-	26
Alabama.....	12	42	648	-	12	13	9	-	-	-	-
Mississippi.....	16	45	474	1	13	7	8	-	-	-	-
WEST SOUTH CENTRAL...	241	1,751	10,187	5	197	122	530	2	2	7	156
Arkansas.....	-	-	1,200	-	10	10	-	-	-	-	-
Louisiana.....	-	1	57	-	46	49	-	-	-	-	1
Oklahoma.....	8	55	2,958	2	41	7	-	-	-	-	-
Texas.....	233	1,695	5,972	3	100	56	530	2	2	7	155
MOUNTAIN.....	28	354	1,691	1	13	16	226	-	-	-	80
Montana.....	-	62	177	-	1	-	13	-	-	-	-
Idaho.....	-	10	171	-	-	1	7	-	-	-	-
Wyoming.....	2	33	13	-	-	-	8	-	-	-	-
Colorado.....	18	128	400	1	7	7	102	-	-	-	51
New Mexico.....	-	36	274	-	-	3	17	-	-	-	9
Arizona.....	8	81	354	-	1	2	51	-	-	-	18
Utah.....	-	2	138	-	-	1	21	-	-	-	2
Nevada.....	-	2	164	-	2	2	7	-	-	-	-
PACIFIC.....	201	1,140	5,119	3	124	133	964	2	2	8	346
Washington.....	30	305	2,565	2	21	11	249	-	-	-	113
Oregon.....	18	238	590	-	11	10	38	-	-	-	16
California.....	*153	574	1,830	1	83	110	620	**2	**2	8	191
Alaska.....	-	-	73	-	-	2	39	-	-	-	8
Hawaii.....	-	23	61	-	9	-	18	-	-	-	18
Puerto Rico.....	24	128	820	2	15	7	16	-	-	-	2

*Includes late reports in current week's total, not separately enumerated.
**Contracted out of state.

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
MARCH 23, 1968 AND MARCH 25, 1967 (12th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968	1968	Cum. 1968
UNITED STATES...	11,634	3	25	1	17	7	49	-	3	73	841
NEW ENGLAND.....	2,210	-	-	-	-	-	2	-	-	8	30
Maine.....	24	-	-	-	-	-	-	-	-	7	29
New Hampshire.....	38	-	-	-	-	-	-	-	-	1	1
Vermont.....	46	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	450	-	-	-	-	-	1	-	-	-	-
Rhode Island.....	111	-	-	-	-	-	-	-	-	-	-
Connecticut.....	1,541	-	-	-	-	-	1	-	-	-	-
MIDDLE ATLANTIC.....	790	1	6	-	-	-	6	-	-	1	9
New York City.....	48	-	3	-	-	-	4	-	-	-	-
New York, Up-State.	624	1	3	-	-	-	1	-	-	1	5
New Jersey.....	NN	-	-	-	-	-	-	-	-	-	-
Pennsylvania.....	118	-	-	-	-	-	1	-	-	-	4
EAST NORTH CENTRAL...	1,333	1	3	-	3	1	8	-	-	7	49
Ohio.....	181	-	-	-	1	1	6	-	-	4	24
Indiana.....	177	-	-	-	-	-	-	-	-	2	10
Illinois.....	346	1	2	-	1	-	1	-	-	-	6
Michigan.....	367	-	1	-	1	-	-	-	-	-	3
Wisconsin.....	262	-	-	-	-	-	1	-	-	1	6
WEST NORTH CENTRAL...	500	-	1	-	4	1	3	-	-	9	155
Minnesota.....	29	-	-	-	-	-	-	-	-	1	39
Iowa.....	162	-	-	-	-	-	-	-	-	2	36
Missouri.....	23	-	1	-	2	-	2	-	-	4	35
North Dakota.....	133	-	-	-	-	-	-	-	-	1	31
South Dakota.....	33	-	-	-	1	1	1	-	-	-	-
Nebraska.....	88	-	-	-	-	-	-	-	-	1	7
Kansas.....	32	-	-	-	1	-	-	-	-	-	7
SOUTH ATLANTIC.....	1,302	-	2	-	4	2	13	-	2	10	101
Delaware.....	16	-	-	-	-	-	-	-	-	-	-
Maryland.....	211	-	-	-	-	1	4	-	-	-	2
Dist. of Columbia..	11	-	-	-	-	-	-	-	-	-	-
Virginia.....	477	-	1	-	1	1	3	-	2	4	54
West Virginia.....	253	-	-	-	-	-	-	-	-	1	11
North Carolina.....	12	-	1	-	2	-	2	-	-	-	2
South Carolina.....	16	-	-	-	-	-	-	-	-	-	-
Georgia.....	27	-	-	-	1	-	1	-	-	1	7
Florida.....	279	-	-	-	-	-	3	-	-	4	25
EAST SOUTH CENTRAL...	1,259	-	2	1	4	-	7	-	1	18	279
Kentucky.....	76	-	-	-	1	-	1	-	-	10	127
Tennessee.....	952	-	-	1	3	-	5	-	-	7	141
Alabama.....	59	-	1	-	-	-	-	-	-	1	11
Mississippi.....	172	-	1	-	-	-	1	-	1	-	-
WEST SOUTH CENTRAL...	925	-	5	-	-	2	4	-	-	15	160
Arkansas.....	2	-	-	-	-	-	-	-	-	1	16
Louisiana.....	33	-	4	-	-	-	1	-	-	3	21
Oklahoma.....	118	-	-	-	-	-	1	-	-	8	52
Texas.....	772	-	1	-	-	2	2	-	-	3	71
MOUNTAIN.....	1,702	-	-	-	2	-	1	-	-	-	10
Montana.....	24	-	-	-	-	-	-	-	-	-	-
Idaho.....	130	-	-	-	-	-	-	-	-	-	-
Wyoming.....	116	-	-	-	-	-	-	-	-	-	1
Colorado.....	1,022	-	-	-	1	-	1	-	-	-	-
New Mexico.....	137	-	-	-	-	-	-	-	-	-	4
Arizona.....	101	-	-	-	-	-	-	-	-	-	5
Utah.....	172	-	-	-	1	-	-	-	-	-	-
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	1,613	1	6	-	-	1	5	-	-	5	48
Washington.....	389	-	-	-	-	-	-	-	-	-	-
Oregon.....	114	-	-	-	-	-	-	-	-	-	-
California.....	962	1	6	-	-	1	5	-	-	5	48
Alaska.....	102	-	-	-	-	-	-	-	-	-	-
Hawaii.....	46	-	-	-	-	-	-	-	-	-	-
Puerto Rico.....	6	-	-	-	-	-	-	-	-	-	8

Week No. 12

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED MARCH 23, 1968

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza	Under 1 year
	All Ages	65 years and over	All Ages	All Causes
NEW ENGLAND:	671	424	20	21
Boston, Mass.	212	118	6	7
Bridgeport, Conn.	26	16	1	3
Cambridge, Mass.	25	13	-	1
Fall River, Mass.	29	22	2	-
Hartford, Conn.	46	25	1	1
Lowell, Mass.	20	14	1	-
Lynn, Mass.	23	15	-	2
New Bedford, Mass.	16	11	-	-
New Haven, Conn.	53	33	1	-
Providence, R. I.	58	37	2	1
Somerville, Mass.	19	14	-	-
Springfield, Mass.	38	27	1	2
Waterbury, Conn.	32	20	-	1
Worcester, Mass.	74	59	5	3
MIDDLE ATLANTIC:	3,415	2,084	147	134
Albany, N. Y.	43	21	1	3
Allentown, Pa.	43	24	3	1
Buffalo, N. Y.	158	95	7	6
Camden, N. J.	53	34	5	2
Elizabeth, N. J.	32	19	1	1
Erie, Pa.	43	26	4	2
Jersey City, N. J.	61	33	3	4
Newark, N. J.	111	65	3	4
New York City, N. Y.	1,658	1,021	76	70
Paterson, N. J.	49	32	5	1
Philadelphia, Pa.	519	320	12	18
Pittsburgh, Pa.	239	137	5	10
Reading, Pa.	47	30	2	-
Rochester, N. Y.	110	71	8	5
Schenectady, N. Y.	24	12	-	2
Scranton, Pa.	51	32	3	-
Syracuse, N. Y.	62	42	-	-
Trenton, N. J.	53	31	5	3
Utica, N. Y.	25	20	1	1
Yonkers, N. Y.	34	19	3	1
EAST NORTH CENTRAL:	2,697	1,543	83	112
Akron, Ohio	70	48	-	2
Canton, Ohio	34	19	1	-
Chicago, Ill.	804	445	29	41
Cincinnati, Ohio	157	86	3	7
Cleveland, Ohio	227	124	8	10
Columbus, Ohio	138	75	3	5
Dayton, Ohio	78	44	1	8
Detroit, Mich.	376	222	5	9
Evansville, Ind.	38	28	-	1
Flint, Mich.	38	17	1	-
Fort Wayne, Ind.	64	36	2	5
Gary, Ind.	33	16	4	4
Grand Rapids, Mich.	42	24	1	1
Indianapolis, Ind.	150	84	1	5
Madison, Wis.	31	14	6	2
Milwaukee, Wis.	133	89	1	4
Peoria, Ill.	42	23	-	3
Rockford, Ill.	38	25	5	1
South Bend, Ind.	36	22	1	1
Toledo, Ohio	122	77	9	3
Youngstown, Ohio	46	25	2	-
WEST NORTH CENTRAL:	861	537	20	35
Des Moines, Iowa	69	41	1	2
Duluth, Minn.	22	11	-	-
Kansas City, Kans.	38	26	3	2
Kansas City, Mo.	119	81	1	2
Lincoln, Nebr.	21	14	-	2
Minneapolis, Minn.	143	85	-	11
Omaha, Nebr.	79	50	4	5
St. Louis, Mo.	255	150	5	5
St. Paul, Minn.	71	52	3	2
Wichita, Kans.	44	27	3	4
SOUTH ATLANTIC:	1,155	598	46	55
Atlanta, Ga.	121	53	1	10
Baltimore, Md.	251	118	5	9
Charlotte, N. C.	38	18	1	1
Jacksonville, Fla.	66	30	3	2
Miami, Fla.	112	72	1	7
Norfolk, Va.	55	30	4	1
Richmond, Va.	74	36	3	11
Savannah, Ga.	38	19	4	1
St. Petersburg, Fla.	86	69	5	-
Tampa, Fla.	70	44	11	1
Washington, D. C.	214	92	7	11
Wilmington, Del.	30	17	1	1
EAST SOUTH CENTRAL:	729	416	37	27
Birmingham, Ala.	96	51	1	4
Chattanooga, Tenn.	78	51	7	2
Knoxville, Tenn.	58	37	6	-
Louisville, Ky.	177	112	12	3
Memphis, Tenn.	132	70	4	5
Mobile, Ala.	48	29	2	4
Montgomery, Ala.	53	28	5	4
Nashville, Tenn.	87	38	-	5
WEST SOUTH CENTRAL:	1,252	661	49	68
Austin, Tex.	47	28	5	3
Baton Rouge, La.	53	20	1	6
Corpus Christi, Tex.	34	22	-	2
Dallas, Tex.	173	90	5	10
El Paso, Tex.	38	21	2	2
Fort Worth, Tex.	79	43	3	11
Houston, Tex.	250	117	10	12
Little Rock, Ark.	64	40	7	1
New Orleans, La.	179	89	5	7
Oklahoma City, Okla.	76	40	-	7
San Antonio, Tex.	118	66	2	4
Shreveport, La.	49	29	4	1
Tulsa, Okla.	92	56	5	2
MOUNTAIN:	430	249	23	19
Albuquerque, N. Mex.	47	31	6	2
Colorado Springs, Colo.	27	18	3	2
Denver, Colo.	90	47	7	-
Ogden, Utah	24	18	2	2
Phoenix, Ariz.	113	56	-	6
Pueblo, Colo.	20	14	2	-
Salt Lake City, Utah	58	38	2	5
Tucson, Ariz.	51	27	1	2
PACIFIC:	1,541	928	32	76
Berkeley, Calif.	24	20	2	1
Fresno, Calif.	39	23	-	4
Glendale, Calif.	30	21	2	-
Honolulu, Hawaii	68	37	4	10
Long Beach, Calif.	69	47	1	1
Los Angeles, Calif.	409	238	10	22
Oakland, Calif.	90	60	1	6
Pasadena, Calif.	40	29	-	-
Portland, Oreg.	123	79	-	3
Sacramento, Calif.	55	28	-	2
San Diego, Calif.	107	58	2	11
San Francisco, Calif.	184	96	4	4
San Jose, Calif.	41	24	1	1
Seattle, Wash.	170	107	4	6
Spokane, Wash.	51	34	1	2
Tacoma, Wash.	41	27	-	3
Total	12,751	7,440	457	547

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages	167,509
All Causes, Age 65 and over	99,828
Pneumonia and Influenza, All Ages	8,936
All Causes, Under 1 Year of Age	7,280

DIPHTHERIA – *(Continued from page 103)*

50-year-old age group. The ratio of female to male cases was 4:3; a higher proportion of female cases occurred in both whites and nonwhites.

Immunization histories were reported for 279 cases. Of these cases, 16 percent had full immunization, 12 percent lapsed, 14 percent inadequate, and 58 percent no immunization. During 1965 and 1966, only one death was reported among 45 cases who were fully immunized. The case fatality ratios for patients who were fully immunized or had lapsed immunization were both significantly less ($P<.025$) than that of the unimmunized group (Table 3).

Table 3
Relationship between Immunization Status and Case Fatality Ratio*

Immunization Status	Cases	Deaths	Case Fatality Ratio
Full	45	1	2.2
Lapsed	34	0	0
Inadequate	38	2	5.3
None	162	28	17.3
Total	279	31	11.1

*Excludes cases whose immunization histories were unknown.

(Reported by the Special Pathogens Unit, Bacterial Diseases Section and Statistics Section, Epidemiology Program, NCDC.)

DEFINITIONS:

Full – Primary series (three or more injections), or a primary series plus a booster, completed within 4 years of onset of illness.

Lapsed – Primary series, or a primary series plus booster, completed more than 4 years prior to onset.

Inadequate – Uncompleted primary series at any time prior to onset.

No – No diphtheria toxoid had ever been received prior to onset.

INTERNATIONAL NOTES
QUARANTINE MEASURES

Additional Immunization Information for International Travel, 1967-68 edition, Public Health Service Publication No. 384

The following information should be included in Section 5:

AFRICA

Lesotho (formerly Basutoland) – Page 30

Add the following: Cholera vaccination is required from persons arriving by air from infected areas.

Add the following:
Cholera vaccination is required from persons arriving by air from infected areas.

Yellow fever vaccination is required from persons arriving from infected areas.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

NATIONAL COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333
ATTN: THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY

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